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Variations in the atmospheric integrated water vapor from phase measurements made with receivers of satellite navigation systems

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Abstract

© 2012, Pleiades Publishing, Ltd. Variations in the atmospheric integrated water vapor obtained from the phase measurement by satellite navigation systems' receivers are discussed. The comparison between numerical weather reanalysis fields and solar photometer measurements has shown an agreement with a relative deviation of less than 10%. Intraseasonal processes of 3–45 days in length significantly contribute to variations in the atmospheric integrated water vapor; their amplitude is 1–4 kg/m2. Variations with periods from 3 to 10 days are the most frequent.

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